



Music Infinity

IEEE 802.11 n/b/g Wireless Router
with 4 Port Switch

AW-NR580

User's Manual

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USING THIS DOCUMENT

This document provides detailed user guidelines to provide AzureWave 802.11 n/g/b Wireless Router with 4 Port Switch operation and setting-up. Though every effort has been made to assure that this document is current and accurate, more information may have become available subsequent to the production of this guide. In that event, please contact your AzureWave representative for additional information that may help in the development process.

Model: AW-NR580
User's Manual
English
1st Edition, June 2007

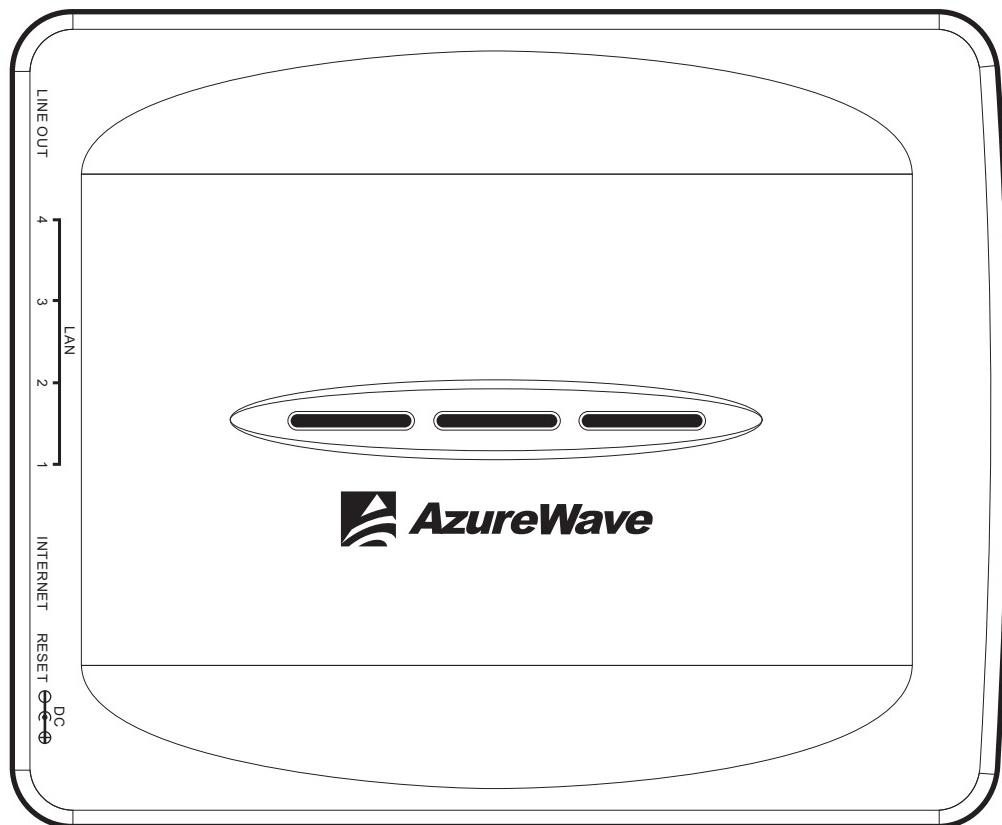
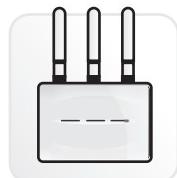


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Contents of Package:

AzureWave AW-NR580



802.11 n/b/g
Wireless Audio Router



User Manual on
CD-ROM



Power Adapter



Ethernet
Cable



Quick Installation
Guide



Cradle

* If any of the above items are missing, please contact your retailer.

System Requirements:

1. Browser-Internet Explorer 5.5 above or Firefox 1.0
2. Wired or Wireless Network Adapter
3. CD-ROM Drive

Introduction

Product overview

Compliant with the IEEE 802.11b/g standard and newest 802.11n draft 2.0 version, the AW-NR580 uses Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM), DBPSK, DQPSK, CCK and QAM baseband modulation.

Comparing to 802.11g technology, 802.11n draft standard make big improvement on speed and range.

Longer Range: Increases wireless range by up to 3 times and reduces dead spots in coverage area. The device adopt Multiple In, Multiple Out" (MIMO) technology, it effectively doubles the data rate. Unlike ordinary wireless networking technologies that are confused by signal reflections, MIMO actually uses these reflections to increase the range and reduce "dead spots" in the wireless coverage area. The robust signal travels farther, maintaining wireless connections up to 3 times farther than standard 802.11g.

Faster speed: WLAN up to 300Mbps data rate. Wireless transmission speed is faster than wired 10/100 Ethernet.

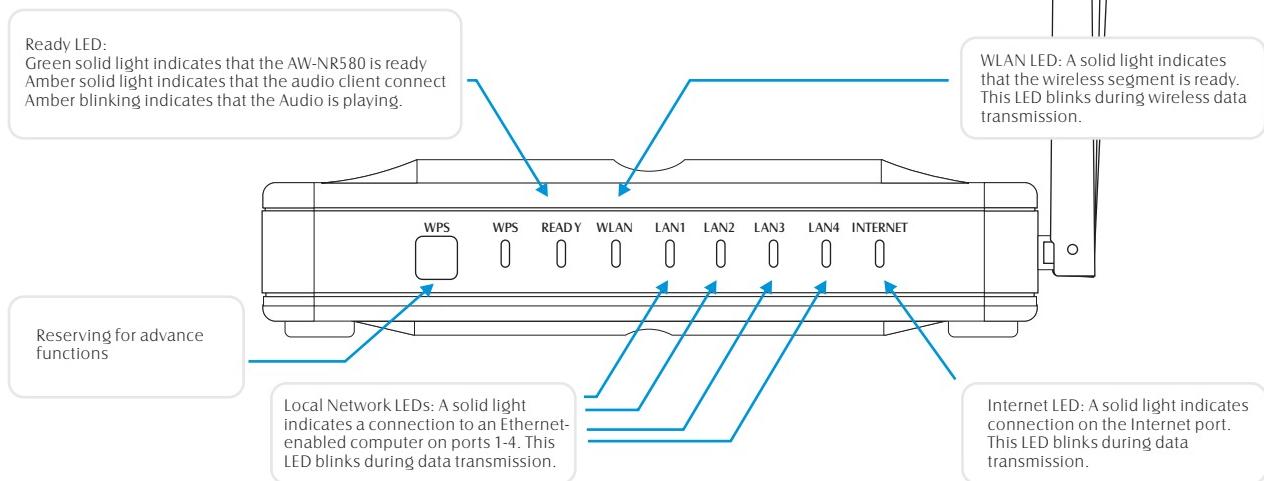
Key Features

- Standard
Wireless:IEEE 802.11n, IEEE 802.11b, IEEE 802.11g standard
Ethernet: IEEE802.3, IEEE802.3u
- Data Rate: Up to 54Mbps data rate.
- 3 *2.4GHz antennas to support 3(transmit)*3(Receive) MIMO technology.
- Security: Wi-Fi Protected Access (WPA), WPA2, 128-bit WEP encryption and MAC filtering
- UPnP IGD enabled.
- Web-based browser configuration for simplified management.
- DHCP Client and Server allow true plug-and play installations.
- Network Address /Port Translation (NAT/PAT) and Virtual Server Mapping allow LANs to be served with one of few IP addresses
- Firewall support for access-list control, DoS Attack prevention, stateful inspection (SPI).
- Supporting Internet protocols include Cable modem (DHCP Client), ADSL modem (PPPoE), PPTP, and Static IP.
- Support VPN Pass Through for IPSec, PPTP, and L2TP.
- All LAN ports support Auto-Crossover(MDI/MDI-X)
- Support audio streaming from PC to router.

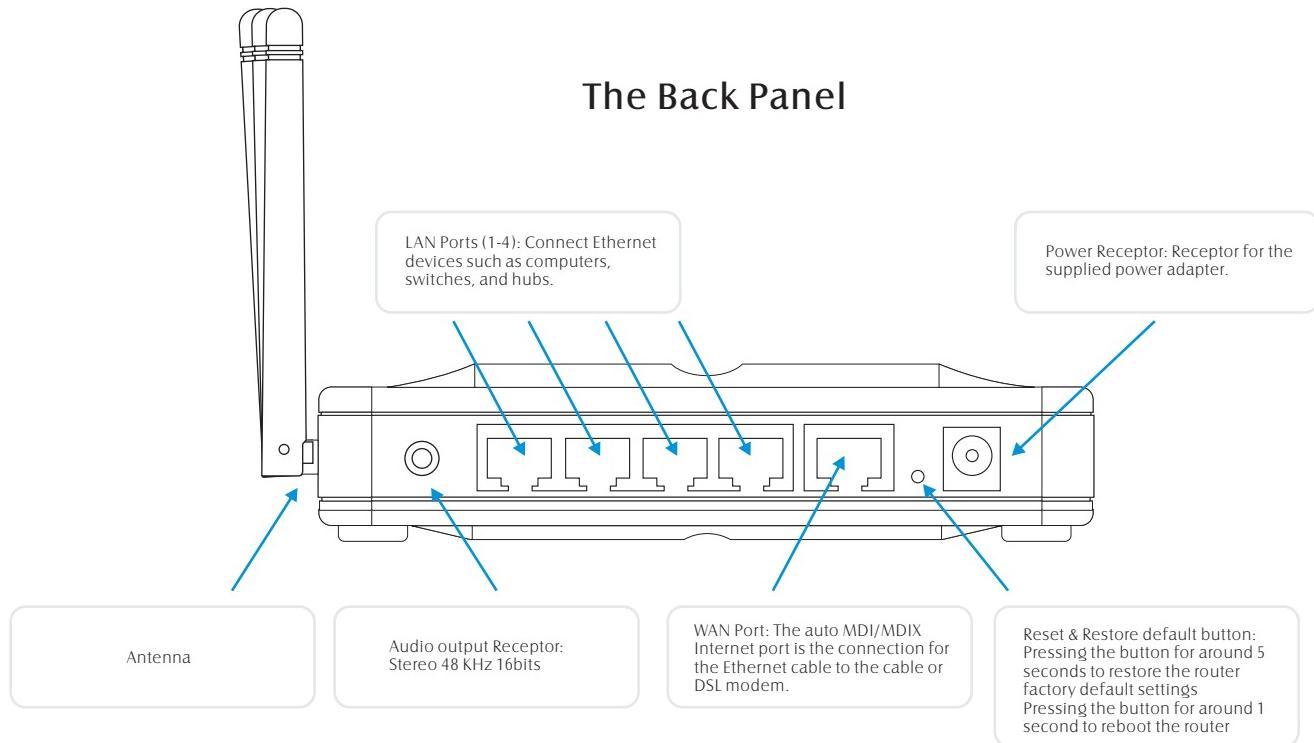
Environmental factors may adversely affect range

LED Indicator & Hardware overview

The Front Panel



The Back Panel



LED indicator:

*Link - Blinks when data is being transmitted through the wireless connection.

Antenna Location:

*Antenna- Used to wirelessly connect to 802.11n/g/b networks

The Hardware Installation**System Requirements**

Before installing the AW-NR580, make sure your system satisfies the following requirements.

- Desktop or Laptop with an Ethernet port
- Browser-Internet Explorer 5.5 or Firefox 1.0 above
- Wired or Wireless Network Adapter
- CD-ROM Drive

Hardware Installation

The AW-NR580 package comes together with a Non-detachable type-antenna to maximize its network operating range.

1. Make sure that all of your hardware is powered off, including the broadband modem and PCs.
2. Connect your broadband modem's Ethernet cable to the Router's Internet port.
3. Connect one end of an Ethernet network cable to one of the numbered ports on the back of the Router. Connect the other end to an Ethernet port on a network device, e.g., a PC, print server, or switch. Repeat this step to connect more PCs or other network devices to the Router.
4. Power on the broadband modem.
5. Connect the included power adapter to the Router's Power port, and then plug the power adapter into an electrical outlet. The Power LED on the front panel will light up when the adapter is connected properly.
6. Power on your PC(s).
7. Locate an optimum location for the Router. The best place for the Router is usually at the center of your wireless network, with line of sight to all of your wireless devices.

Operating Range

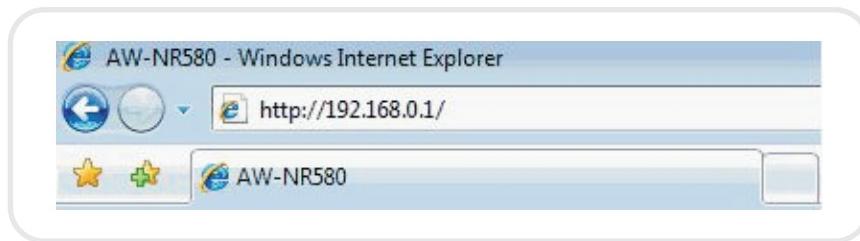
The signal range of AW-NR580 varies from the operating environment. Obstacles such as walls and metal barriers could reflex and absorb radio signals. Devices like microwave ovens can create problems to the wireless network greatly.

Set by default, the AW-NR580 should automatically adjust the data rate. The closer the wireless stations are the better the signal and transmission speed they will receive. To improve your wireless transmission, try moving your wireless stations closer to the AW-NR580.

AW-NR580 Configuration

How to Access the Web-based Utility

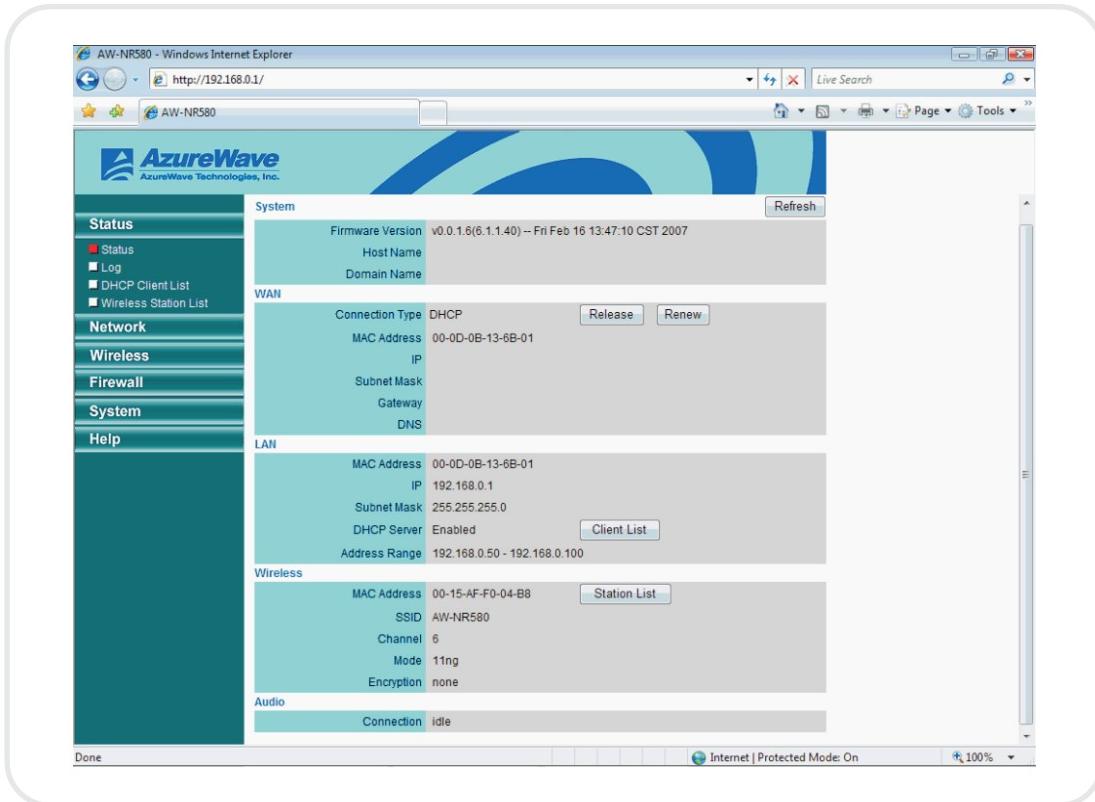
To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of the **AW-NR580** router (192.168.0.1).



Status-Main page

The Router Status menu provides status and usage information. This page displays the current information for the AW-NR580. It will display the System (Firmware version) WAN (Internet), LAN, and Wireless, Audio information.

If your Internet connection is set up for a Dynamic IP address then a Release button and a **Renew** button will be displayed. Use **Release** to disconnect from your ISP and use **Renew** to connect to your ISP. If your Internet connection is set up for PPPoE, a **Connect** button and a **Disconnect** button will be displayed. Use **Disconnect** to drop the PPPoE connection and use **Connect** to establish the PPPoE connection.



System: This field displays the **AW-NR580** router's time and firmware version and Host Name and Domain Name assigned to the router.

WAN: Displays the MAC address and the public IP settings for the AW-NR580 router.

LAN: Displays the MAC address and the private (local) IP settings and DHCP IP address range for the **AW-NR580** router.

Wireless: Displays the wireless MAC address and your wireless settings such as SSID, Channel, Wireless mode and Encryption mode.

Audio: Shows who is using wireless audio transmission at current moment.

Status-Log

The **AW-NR580** router automatically logs (records) events of possible interest in its internal memory. If there isn't enough internal memory for all events, logs of older events are deleted but logs of the latest events are retained.

Refresh: Click this button to refresh the log screen.

Clear: Click this button to clear the log entries.

Status		Time	Message	Clear	Refresh
<input type="checkbox"/> Status	<input type="checkbox"/> Log				

Status-DHCP Client List

Displays computers and devices that are connected to the **AW-NR580** router via Ethernet or Wireless and that are receiving an IP address assigned by the **AW-NR580** router (DHCP).

Status		HostName	IP	MAC Address	Expiring Time	Refresh
<input type="checkbox"/> Status	<input type="checkbox"/> Log					

Status-Wireless Station List

The wireless Station List displays a list of current connected wireless Station. This List also displays the MAC address and Wireless Mode of the connected wireless Stations.

Status		No.	MAC Address	Mode	Refresh
<input type="checkbox"/> Status	<input type="checkbox"/> Log				

Network-WAN - Automatically Set

Connection Type: Select **DHCP-Automatically Set** to obtain IP Address information automatically from your ISP. Select this option if your ISP does not give you any IP numbers to use. This option is commonly used for Cable modem services.

Host Name: The Host Name is optional but may be required by some ISPs.

Domain Name: The Domain Name is optional but may be required by some ISPs

WAN	
Connection Type	DHCP - Automatically Set ▾
Host Name	(optional)
Domain Name	(optional)

Network-WAN - Static IP

Connection Type: Select **Static IP** Address if all the Internet port's IP information is provided to you by your ISP. You will need to enter in the IP address, subnet mask, gateway address, and DNS address provided to you by your ISP. Each IP address entered in the fields must be in the appropriate IP form, which are four octets separated by a dot (x.x.x.x). The AW-NR580 router will not accept the IP address if it is not in this format

IP: Enter the IP address assigned by your ISP.

Subnet Mask: Enter the Subnet Mask assigned by your ISP.

Gateway: Enter the Gateway assigned by your ISP.

DNS: The DNS server information will be supplied by your ISP (Internet Service Provider.)

WAN	
Connection Type	Static IP ▾
IP	
Subnet Mask	
Gateway	
DNS 1	
DNS 2	(optional)
DNS 3	(optional)

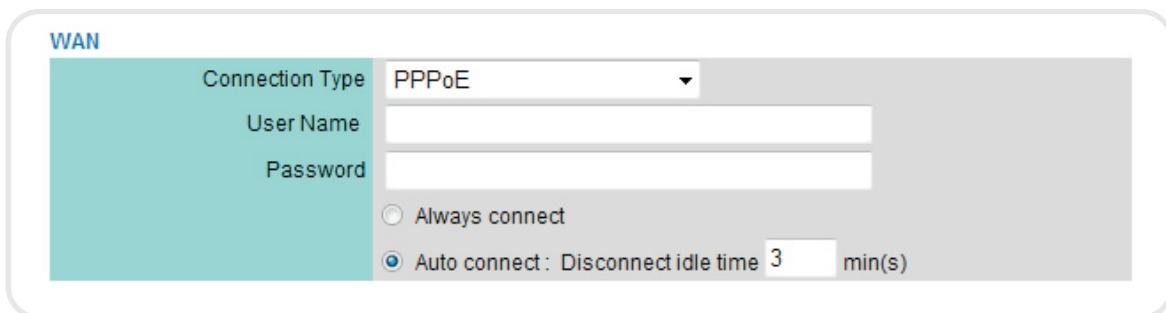
Network-WAN -- PPPoE

Connection Type: Choose PPPoE (Point to Point Protocol over Ethernet) if your ISP uses a PPPoE connection. Your ISP will provide you with a username and password. This option is typically used for DSL services. Make sure to remove your PPPoE software from your computer. The software is no longer needed and will not work through a router. Select **PPPoE (Username/Password)** from the drop-down menu.

User Name: Enter your PPPoE user name.

Password: Enter your PPPoE password and then retype the password in the next box. Select either **“Always connect” or “Auto connect.”**

Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable **“Always connect.”**



The screenshot shows the WAN configuration interface for PPPoE. The 'Connection Type' dropdown is set to 'PPPoE'. Below it are fields for 'User Name' and 'Password'. At the bottom, there are two radio button options: 'Always connect' (unchecked) and 'Auto connect: Disconnect idle time 3 min(s)' (checked). The 'Disconnect idle time' field contains the value '3' and the unit 'min(s)'.

Network-WAN -- PPTP

Connection Type: Choose PPTP (Point-to-Point-Tunneling Protocol) if your ISP uses a PPTP connection. Your ISP will provide you with a username and password. This option is typically used for DSL services.

IP: Enter the IP address (Static PPTP only).

Subnet Mask: Enter the Subnet Mask assigned by your ISP

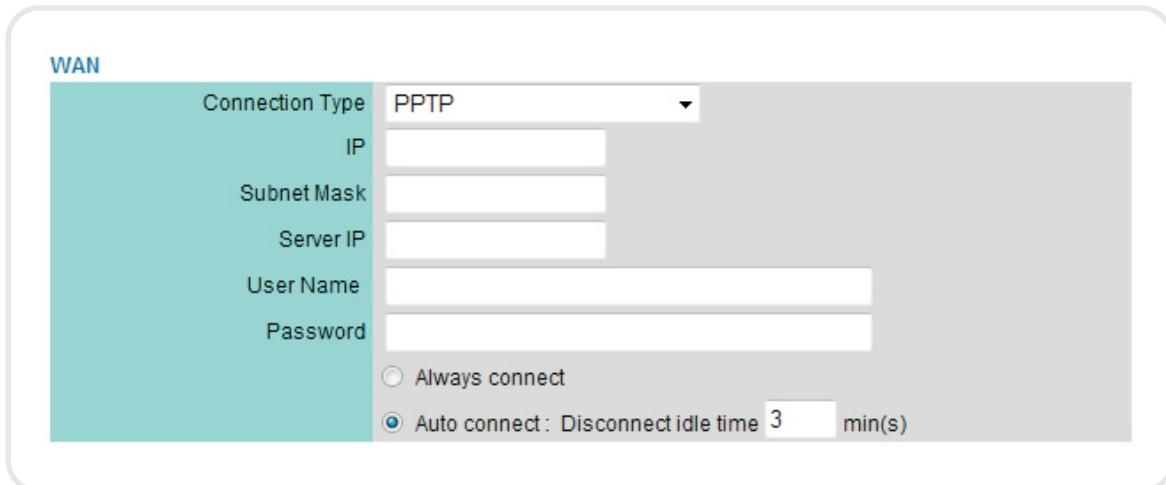
Server IP: Enter the Server IP provided by your ISP (optional).

User Name: Enter your PPTP username.

Password: Enter your PPTP password and then retype the password in the next box.

Select either **“Always connect” or “Auto connect.”**

Enter a maximum idle time during which the Internet connection is maintained during inactivity. To disable this feature, enable **“Always connect.”**



The screenshot shows the WAN configuration interface for PPTP. The 'Connection Type' dropdown is set to 'PPTP'. Below it are fields for 'IP', 'Subnet Mask', 'Server IP', 'User Name', and 'Password'. At the bottom, there are two radio button options: 'Always connect' (unchecked) and 'Auto connect: Disconnect idle time 3 min(s)' (checked). The 'Disconnect idle time' field contains the value '3' and the unit 'min(s)'.

Network-LAN

This section will allow you to change the local network settings of the router and to configure the DHCP settings.

IP: Enter the IP address of the **AW-NR580** router. The default IP address is 192.168.0.1.

If you change the IP address, once you click **Apply**, you will need to enter the new IP address in your browser to get back into the configuration utility.

Subnet mask: The default subnet mask is 255.255.255.0.

DHCP Server: DHCP stands for Dynamic Host Control Protocol. The **AW-NR580** Router has a built-in DHCP server. The DHCP Server will automatically assign an IP address to the computers on the LAN/private network. Be sure to set your computers to be DHCP clients by setting their TCP/IP settings to "Obtain an IP Address Automatically." When you turn your computers on, they will automatically load the proper TCP/IP settings provided by the Router. The DHCP Server will automatically allocate an unused IP address from the IP address pool to the requesting computer. You must specify the starting and ending address of the IP address pool.

DHCP Server: Check this box to enable the DHCP server on your router. Uncheck to disable this function.

Address Range: Enter the starting and ending IP addresses for the DHCP server's IP assignment.

WINS: Enter the Domain name (Optional).

The screenshot shows the 'LAN' configuration section. It includes fields for IP (192.168.0.1), Subnet Mask (255.255.255.0), and a radio button for DHCP Server (Enabled). Below these are fields for Address Range (192.168.0.50 - 192.168.0.100) and WINS. At the bottom are 'Apply' and 'Cancel' buttons.

Network-MAC Clone

The default MAC Address is set to the Internet port's physical interface MAC address on the Broadband Router. It is not recommended that you change the default MAC address unless required by your ISP. You can use the **Clone MAC of this PC** button to replace the Internet port's MAC address with the MAC address of your Ethernet card.

The screenshot shows the 'Network' status bar on the left with options: LAN / WAN, MAC Clone, Dynamic DNS, UPnP, and Bandwidth Control. The main area shows a 'MAC Clone' section with a radio button for 'Disabled' (selected) and 'Enabled'. There is a 'MAC Address' field and a 'Clone MAC of this PC' button. At the bottom are 'Apply' and 'Cancel' buttons.

Network-Dynamic DNS

The DDNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (www.dyndns.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter in your domain name to connect to your server no matter what your IP address is.

Dynamic DNS: Enabled/Disabled DDNS function.

User Name: Enter the Username for your DDNS account.

Password: Enter the Password for your DDNS account.

Host Name: Enter the Host Name that you registered with your DDNS service provider.

Status			
Network			
<input type="checkbox"/> LAN / WAN			
<input type="checkbox"/> MAC Clone			
<input checked="" type="checkbox"/> Dynamic DNS			
<input type="checkbox"/> UPnP			
<input type="checkbox"/> Bandwidth Control			

Dynamic DNS	<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
User Name		
Password		
Host Name		

Apply Cancel

Network-UPnP

To use the Universal Plug and Play (UPnP™) feature click on **Enabled**. UPnP provides compatibility with networking equipment, software and peripherals.

UPnP: Enabled/Disabled UPnP function.

Status			
Network			
<input type="checkbox"/> LAN / WAN			
<input type="checkbox"/> MAC Clone			
<input type="checkbox"/> Dynamic DNS			
<input checked="" type="checkbox"/> UPnP			
<input type="checkbox"/> Bandwidth Control			

UPnP	<input type="radio"/> Disabled	<input checked="" type="radio"/> Enabled
------	--------------------------------	------------------------------------------

Apply Cancel

Network-Bandwidth Control

Bandwidth Control is a feature that allows the Network Administrator to specify the allowed speed of uplink traffic on the port of service. Use this section to configure AW-NR580 Bandwidth Control. This improves your online gaming experience by ensuring that your game traffic is prioritized over other network traffic, such as FTP or Web. For best performance, use the Router toolbox utility to easily set the priority for your applications or set it by following procedures of WEB page of AW-NR580

This option is disabled by default. Enable this option and "Apply".

Uplink Speed: The speed at which data can be transferred from the router to your ISP. This is determined by your ISP, the speed of ISP as download/upload pair. For example, 8Mbits/512Kbits. Using this example, you would enter 512K.

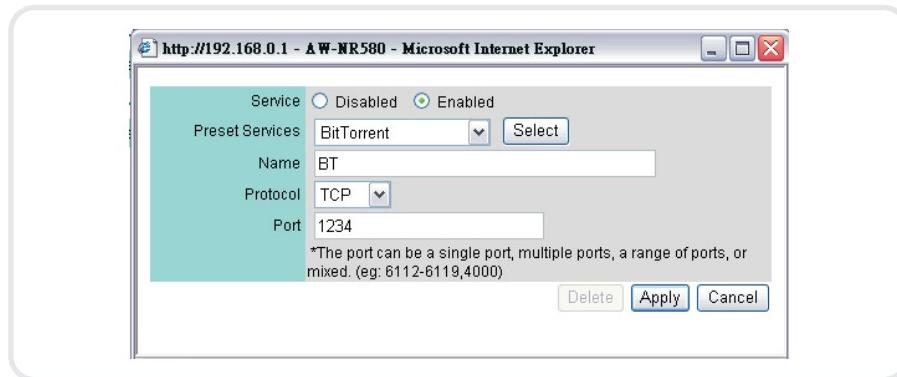
The screenshot shows the 'Bandwidth Control' configuration window. At the top, there is a table with three rows: 'Enable' (checked), 'Uplink Speed' (set to 512 kbps), and 'Low Priority limit' (set to 100%). Below this is a 'Low Priority List' table with columns for 'Enable', 'Service Name', 'Protocol', and 'Port'. There is also an 'Add' button. Below that is a 'High Priority List' table with similar columns and an 'Add' button. At the bottom right are 'Apply' and 'Cancel' buttons.

Low Priority limit percentage is meaning the speed is not over the range of ADSL/Cable modem as Uplink Speed. (Remark: Check your ISP to get your bandwidth of Uplink such as 512K, 1M or more)

The range of Low Priority limit is from 10% to 100%.

The screenshot shows the same 'Bandwidth Control' configuration window as above, but the 'Low Priority limit' dropdown menu is open, displaying a list of percentage values from 100% down to 10% in 10% increments. The 'Apply' and 'Cancel' buttons are visible at the bottom right of the configuration area.

This option will allow you to specify different service used high priority or low priority. Enter a name for the High Priority or Low Priority service and select a Service (Xbox Live, Bit Torrent....) from the drop-down menu. Enter the TCP or UDP and port that you want to use. You can enter a single port or a range of ports. Separate ports with a common. Example: 3000-4000. When you have finished making changes to this screen, click the **Apply** button to save the changes.

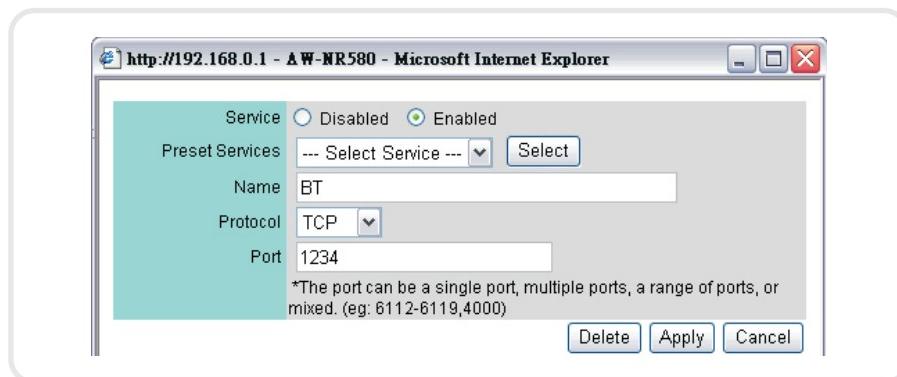


After applying, all the service names will be list on Low Priority or High Priority list.

Low Priority List				
Enable	Service Name	Protocol	Port	
<input checked="" type="checkbox"/>	BT	TCP	1234	

High Priority List				
Enable	Service Name	Protocol	Port	
<input checked="" type="checkbox"/>	Xbox Live	UDP	3456	

To delete the rules, click “**delete**” Button.”



Wireless-Basic

SSID: Service Set Identifier (SSID) is the name of your wireless network. Create a name using up to 32 characters. The SSID is case-sensitive.

Channel: Indicates the channel setting for the AW-NR580. By default the channel is set to 6. The Channel can be changed to fit the channel setting for an existing wireless network or to customize the wireless network.

Mode: Mixed 802.11n, 802.11b, and 802.11g - using a mix of 802.11n, 11g, and 11b wireless clients.

The screenshot shows the 'Wireless' configuration page. On the left, a sidebar lists 'Status', 'Network', 'Wireless' (selected), 'Basic', 'Advanced', and 'WPS'. The main area contains fields for SSID (set to 'AW-NR580'), Channel (set to '6'), Mode (set to '802.11 n/g'), and Encryption Type (set to 'None'). At the bottom right are 'Apply' and 'Cancel' buttons.

Wireless-Basic Encryption Type – WEP 64/128bit

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select Encryption Type to **WEP (54MHz only)**
2. Next to WEP Key Length, select the level of encryption (64 or 128-bit) and either **Hex** or **ASCII**.
 - Hex** - (recommended) Letters A-F and numbers 0-9 are valid.
 - ASCII** - All numbers and letters are valid.
3. Next to WEP Key 1, enter a WEP key that you create. Make sure you enter this key exactly on all your wireless devices. You may enter up to 4 different keys.
4. Click Apply to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable WEP on your adapter and enter the same WEP key as you did on the router.

The screenshot shows the 'Wireless' configuration page with the 'Encryption Type' dropdown set to 'WEP (54M only)'. The 'Key Size' dropdown is open, showing options: '64-bit (5 or 10 characters)' (selected), '64-bit (5 or 10 characters)', and '128-bit (13 or 26 characters)'. The main area also includes fields for WEP Key 1 through WEP Key 4, each with a radio button and a text input field. At the bottom right are 'Apply' and 'Cancel' buttons.

Wireless-Basic Encryption Type – WPA-PSK

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select WPA-PSK mode.

2. Next to Cipher Mode, select **TKIP** or **AES**.

3. Next to Pre-Shared Key, enter a key (pass phrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.

4. Click **Apply** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable **WPA-PSK** on your adapter and enter the same pass phrase as you did on the router.

The screenshot shows a configuration interface for a wireless network. The SSID is set to "AW-NR580". The Channel is set to "9". The Mode is set to "802.11 n/g". The Encryption Type is set to "WPA-PSK". Under "WPA Cipher Suite", the "TKIP" checkbox is selected. There is a text input field for "WPA Pass Phrase" with the placeholder text "Enter passphrase (8~63 ASCII characters) or 64 hexadecimal characters". At the bottom right are "Apply" and "Cancel" buttons.

Wireless-Basic Encryption Type WPA2-PSK

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select Encryption Type to **WPA2-PSK** mode.

2. Next to WPA Cipher Suite, select **TKIP** or **AES**.

3. Next to WPA Pass Phrase enter a key (pass phrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.

4. Click **Apply** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable **WPA2-PSK** on your adapter and enter the same pass phrase as you did on the router.

The screenshot shows a configuration interface for a wireless network. The SSID is set to "AW-NR580". The Channel is set to "9". The Mode is set to "802.11 n/g". The Encryption Type is set to "WPA2-PSK". Under "WPA Cipher Suite", the "TKIP" checkbox is selected. There is a text input field for "WPA Pass Phrase" with the placeholder text "Enter passphrase (8~63 ASCII characters) or 64 hexadecimal characters". At the bottom right are "Apply" and "Cancel" buttons.

Wireless-Basic Encryption Type – WPA-PSK/WPA2-PSK Mixed

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select **WPA-PSK/WPA2-PSK Mixed** mode.
2. Next to Cipher Suite, select **TKIP** or **AES**.
3. Next to WPA Pass Phrase (Pre-Shared Key), enter a key (pass phrase). The key is entered as a pass-phrase in ASCII format at both ends of the wireless connection. The pass-phrase must be between 8-63 characters.
4. Click **Apply** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable **WPA-PSK/WPA2-PSK Mixed** on your adapter and enter the same pass phrase as you did on the router.

The screenshot shows a configuration dialog for a wireless network. The fields are as follows:

SSID	AW-NR580
Channel	9
Mode	802.11 n/g
Encryption Type	WPA-PSK&WPA2-PSK Mixed
WPA Cipher Suite	<input type="checkbox"/> TKIP <input type="checkbox"/> CCMP
WPA Pass Phrase	<input type="text"/>
Enter passphrase (8~63 ASCII characters) or 64 hexadecimal characters	
Apply Cancel	

Wireless-Basic Encryption Type – WPA Enterprise

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select **WPA Enterprise** mode.
2. Next to Cipher Suite, select **TKIP** or **AES**.
3. Next to **RADIUS Server IP Address** enter the IP Address of your RADIUS server.
4. Next to **RADIUS Server Port**, enter the port you are using with your RADIUS server. 1812 is the default port.
5. Next to **RADIUS Server Shared Secret**, enter the security key.
6. Click Apply to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable **WPA Enterprise** on your adapter.

The screenshot shows a configuration dialog for a wireless network. The fields are as follows:

SSID	AW-NR580
Channel	6
Mode	802.11 n/g
Encryption Type	WPA Enterprise
WPA Cipher Suite	<input type="checkbox"/> TKIP <input type="checkbox"/> CCMP
RADIUS Server IP	<input type="text"/>
Port	1812
Shared Secret	<input type="text"/>
Apply Cancel	

Wireless-Basic Encryption Type – WPA2 Enterprise

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select **WPA2 Enterprise** mode.
2. Next to Cipher Suite, select **TKIP** or **AES**.
3. Next to **RADIUS Server IP Address** enter the IP Address of your RADIUS server.
4. Next to **RADIUS Server Port**, enter the port you are using with your RADIUS server. 1812 is the default port.
5. Next to **RADIUS Server Shared Secret**, enter the security key.
6. Click **Apply** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable **WPA2 Enterprise** on your adapter.

The screenshot shows a configuration dialog box for a wireless interface. The fields and their values are:

SSID	AW-NR580
Channel	6
Mode	802.11 n/g
Encryption Type	WPA2 Enterprise
WPA Cipher Suite	<input type="checkbox"/> TKIP <input type="checkbox"/> CCMP
RADIUS Server IP	[Empty text field]
Port	1812
Shared Secret	[Empty text field]

At the bottom right of the dialog are two buttons: **Apply** and **Cancel**.

Wireless-Basic Encryption Type WPA/WPA2 Mixed

It is recommended to enable encryption on your wireless router before your wireless network adapters. Please establish wireless connectivity before enabling encryption.

1. Select **WPA/WPA2 Mixed** mode.

2. Next to Cipher Mode, select **TKIP or AES**.

3. Next to RADIUS Server IP Address enter the IP Address of your RADIUS server.

4. Next to RADIUS Server Port, enter the port you are using with your RADIUS server. 1812 is the default port.

5. Next to RADIUS Server Shared Secret, enter the security key.

6. Click **Apply** to save your settings. If you are configuring the router with a wireless adapter, you will lose connectivity until you enable **WPA/WPA2 Mixed** on your adapter.

The screenshot shows a configuration dialog for a wireless interface. The fields are as follows:

- SSID: AW-NR580
- Channel: 6
- Mode: 802.11 n/g
- Encryption Type: WPA/WPA2 Mixed
- WPA Cipher Suite: TKIP (checkbox checked), CCMP (checkbox unchecked)
- RADIUS Server IP: (empty field)
- Port: 1812
- Shared Secret: (empty field)

At the bottom right are two buttons: "Apply" and "Cancel".

Wireless-Advanced

Broadcast SSID: Select **disabled** if you do not want the SSID of your wireless network to be broadcasted by the AW-NR580. If Disabled is selected, the SSID of the AW-NR580 will not be seen by Site Survey utilities so your wireless clients will have to know the SSID of your AW-NR580 in order to connect to it.

Channel Width:

20MHz - Select if you are not using any 802.11n wireless clients.

Dynamic 20/40 - This is the default setting. Select if you are using both 802.11n and non-802.11n wireless devices.
40MHz - Select if you are using all 802.11n devices for maximum performance.

Beacon Period: Beacons are packets sent by an Access Point to synchronize a wireless network. Specify a value. 100 is the default setting and is recommended.

RTS Threshold: This value should remain at its default setting of 2436. If inconsistent data flow is a problem, only a minor modification should be made.

Fragmentation Threshold: The fragmentation threshold, which is specified in bytes, determines whether packets will be fragmented. Packets exceeding the 2346 byte setting will be fragmented before transmission. 2436 is the default setting.

DTIM Interval: (Delivery Traffic Indication Message) 1 is the default setting. A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.

WMM: WMM is QoS for your wireless network. Enable this option to improve the quality of video and voice applications for your wireless clients.

ShortGI: Check this box to reduce the guard interval time therefore increasing the data capacity. However, it's less reliable and may create higher data loss.

The screenshot shows the 'Wireless' configuration page. On the left is a vertical navigation menu with options: Status, Network, Wireless, Firewall, System, and Help. The 'Wireless' option is selected and expanded, showing sub-options: Basic, Advanced, and WPS. The main content area displays various wireless parameters:

- Broadcast SSID: Radio button for 'Enabled' (selected) or 'Disabled'.
- Channel Width: Radio button for '20 Hz' or 'Dynamic (20/40 Hz)' (selected).
- Beacon Period: Input field set to 100, with a range of 20 - 1000.
- RTS Threshold: Input field set to 2346, with a range of 1 - 2346.
- Fragmentation Threshold: Input field set to 2346, with a range of 256 - 2346.
- DTIM Interval: Input field set to 1, with a range of 1 - 255.
- WMM: Radio button for 'Enabled' (selected) or 'Disabled'.
- ShortGI: Radio button for 'Enabled' (selected) or 'Disabled'.

At the bottom right are 'Apply' and 'Cancel' buttons.

Wireless-WPS

WPS: Wi-Fi Protected Setup. This is an optional technology meant to make it easier for home and small office network operators – those without an IT staff – to deploy secure wireless LANs

1. WPS default setting is “**Disabled**”.
2. Please select the “Enable” button then press Apply button to set up the WPS if you require.

The screenshot shows the 'WI-FI Protected Setup' configuration page. On the left is a vertical navigation menu with options: Status, Network, Wireless, Firewall, System, and Help. The 'Wireless' option is selected and expanded, showing sub-options: Basic, Advanced, and WPS. The main content area displays the following settings:

- WPS Function:** Radio button for 'Enabled' (selected) or 'Disabled'.
- Current PIN:** Displayed as 85886681.
- Action Buttons:** 'Generate New PIN' and 'Restore to Default PIN'.
- Add Wireless Station:** A button labeled 'Add'.

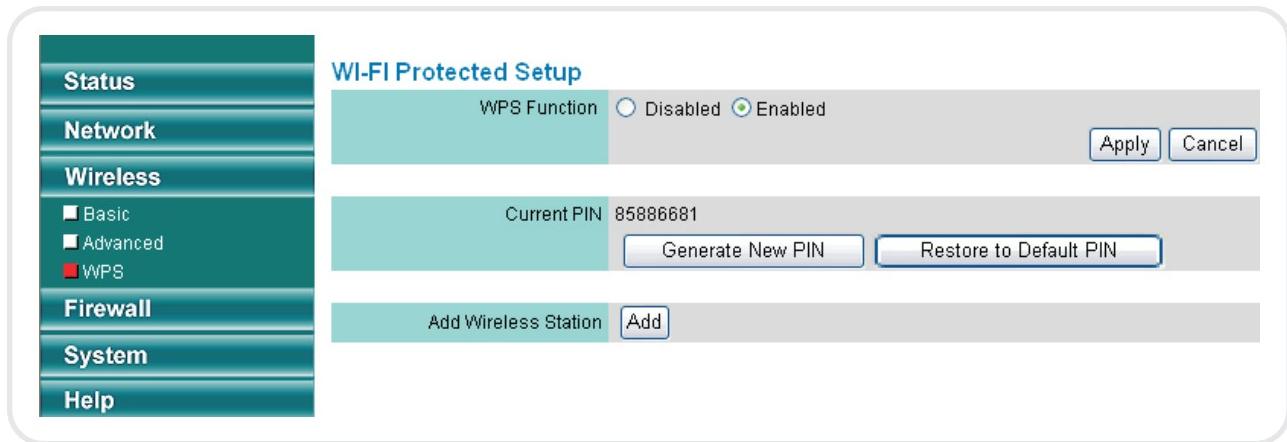
At the bottom right are 'Apply' and 'Cancel' buttons.

The WPS configuration includes 2 methods.

Method 1: You can setup the WPS by Wireless Client side. Please following next procedures

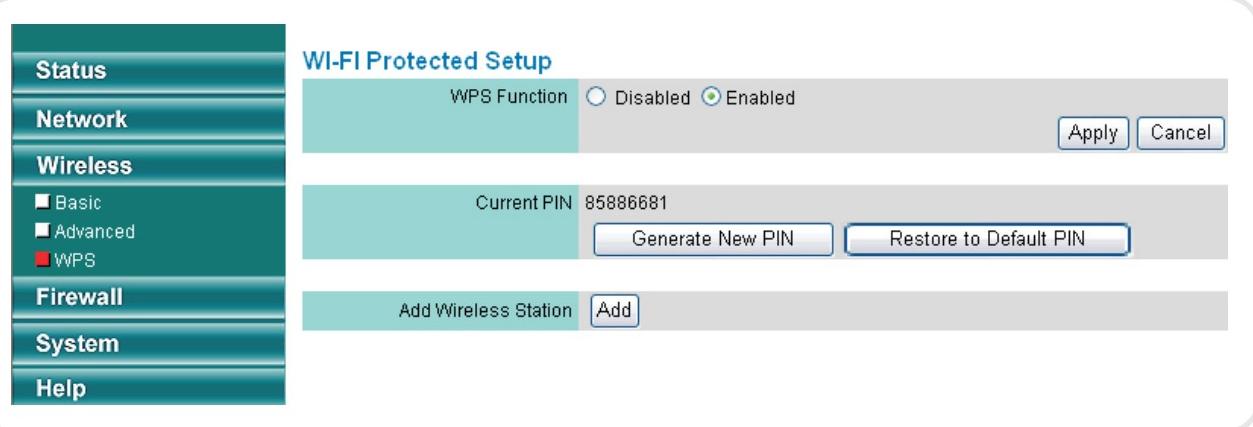
1. Please key in the Current Pin number to your wireless Client to join AW-NR580 using PIN config method or you can create the new pin code by "Generate New Pin" button and key in the new Pin number to your wireless Client to join Router using PIN config method. After re-authenticating to Router, the connection is completed.

2. "Restore to Default PIN" button can be restore to factory default PIN code.

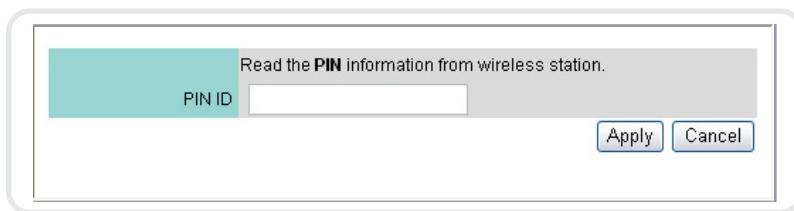


Method 2: You can setup the WPS by Wireless Router side. Please following next procedures

1. Click the "Add" button of "Add wireless Station".



2. It must get the wireless Client PIN code in advance, and then fill in the form.

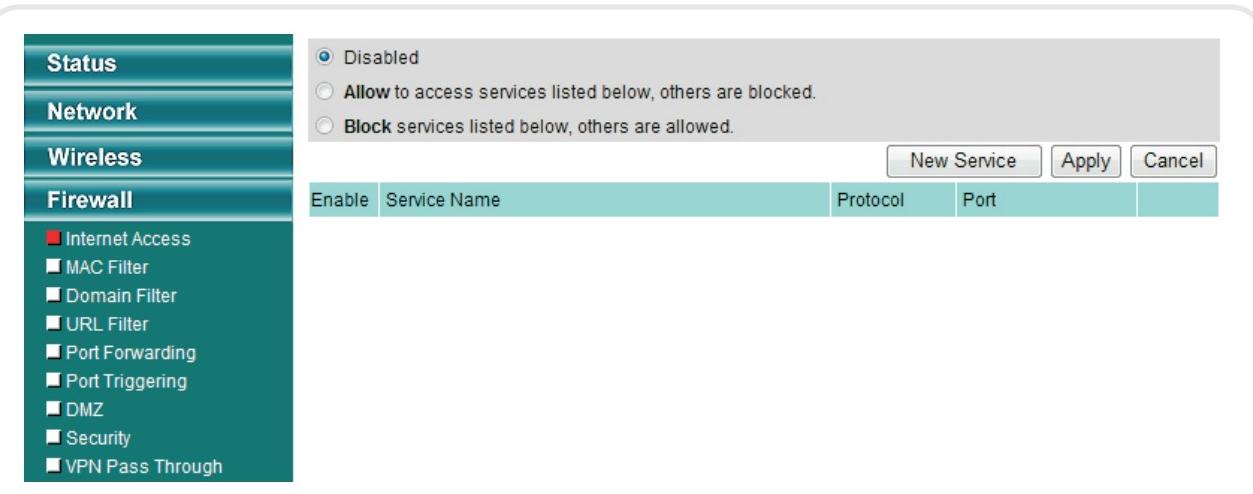


To click the "Apply" button.

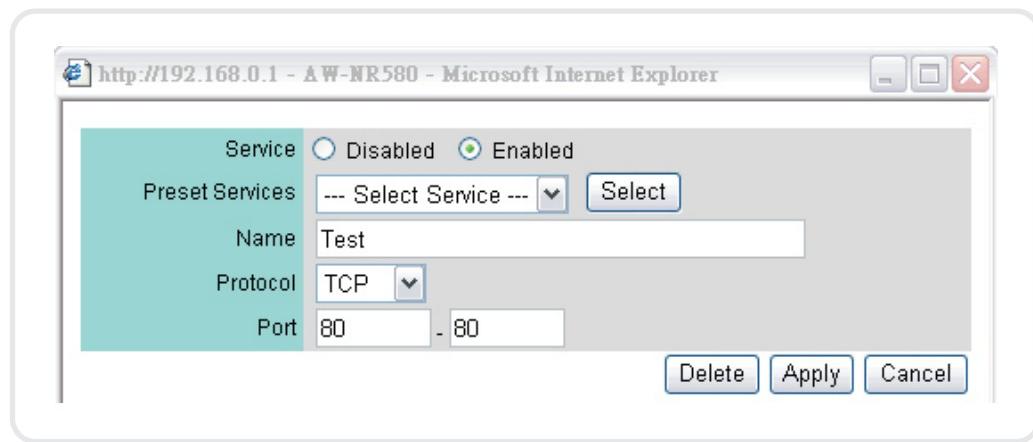
3. After re-authenticating to Router, the connection is completed.

Firewall-Internet Access

The **AW-NR580** router allows you to block the use of certain Internet services by computers on your network. This is called Internet Access blocking or port filtering. Enter a name for the rule and select a Service (HTTP, FTP,...) from the drop-down menu. Select the Protocol TCP or UDP port that you want to block. You can enter a single port or a range of ports. When you have finished making changes to this screen, click the **Apply** button to save the changes.



To delete the rules, click "delete" Button."



Firewall-MAC Filter

Use MAC (Media Access Control) Filters to allow or deny LAN (Local Area Network) computers by their MAC addresses from accessing the Network. You can either manually add a MAC address or select the MAC address from the list of clients that are currently connected to the Broadband Router.

Select Turn MAC Filtering Off, allow MAC addresses listed below, or deny MAC addresses listed.

The screenshot shows a web-based configuration interface with a sidebar menu on the left and a main configuration area on the right.

Left Sidebar (Menu):

- Status
- Network
- Wireless
- Firewall** (selected)

 - Internet Access
 - MAC Filter
 - Domain Filter
 - URL Filter
 - Port Forwarding
 - Port Triggering
 - DMZ
 - Security
 - VPN Pass Through

- System
- Help

Main Configuration Area:

Status:

- Disabled
- Allow PCs listed below to access this device, others are denied.
- Deny PCs listed below to access this device, others are allowed.

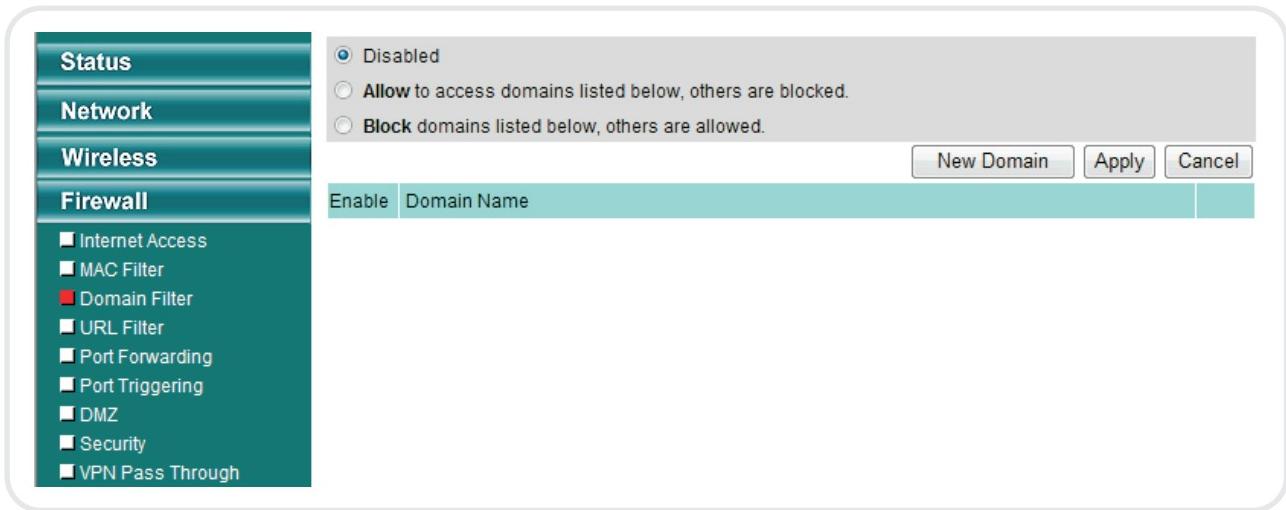
MAC Address List:

1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32

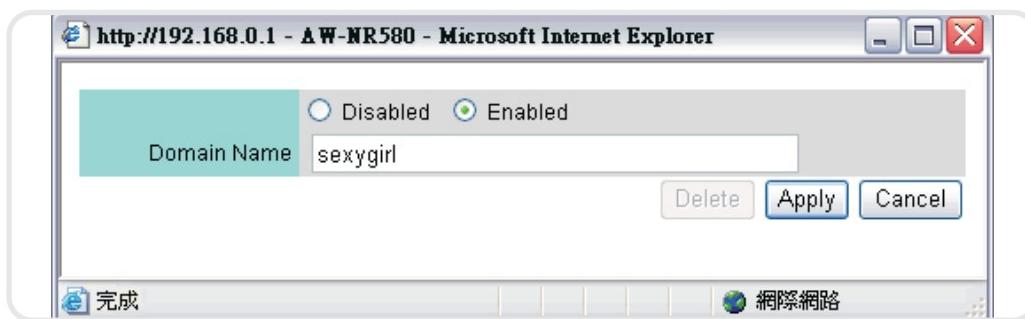
At the bottom right are two buttons: "Apply" and "Cancel".

Firewall-Domain Filter

Domain Filters are used to deny LAN computers from accessing specific domain. Enter the keywords of Domain that you want to block (or allow). Any Domain with the keyword in it will be blocked.

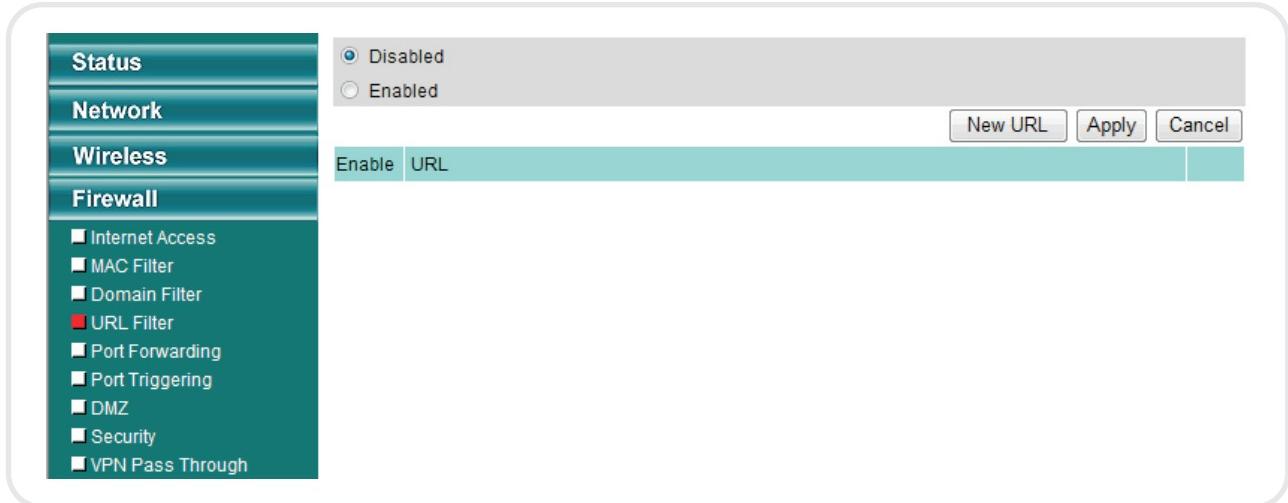


To use this feature, Select Allow/Block then click New Domain Button, enters the text string to be blocked and click **Apply**. The text to be blocked will appear in the list. To delete the text, click "delete" Button."



Firewall-URL Filter

URL Filters are used to deny LAN computers from accessing specific web sites by the URL. A URL is a specially formatted text string that defines a location on the Internet. If any part of the URL contains the blocked word, the site will not be accessible and the web page will not display.



To use this feature, Select Enabled then click New URL Button, enters the text string to be blocked and click **Apply**. The text to be blocked will appear in the list. To delete the text, click “**delete**” Button.”

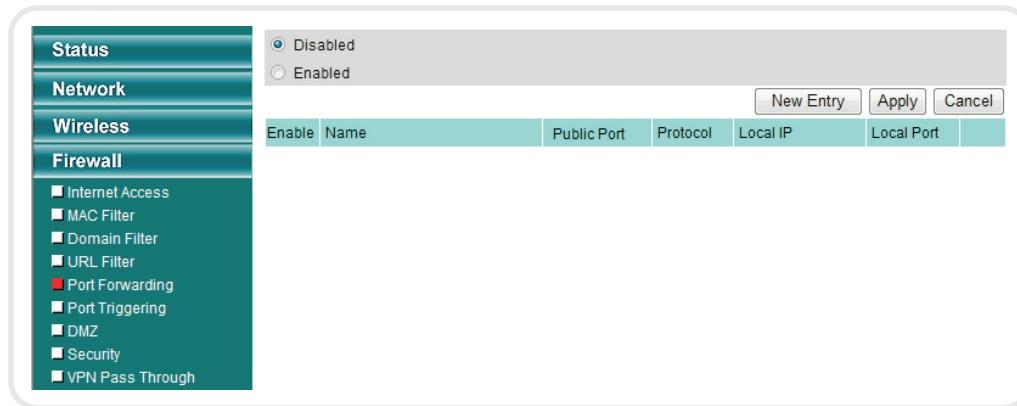


Firewall-Port Forwarding

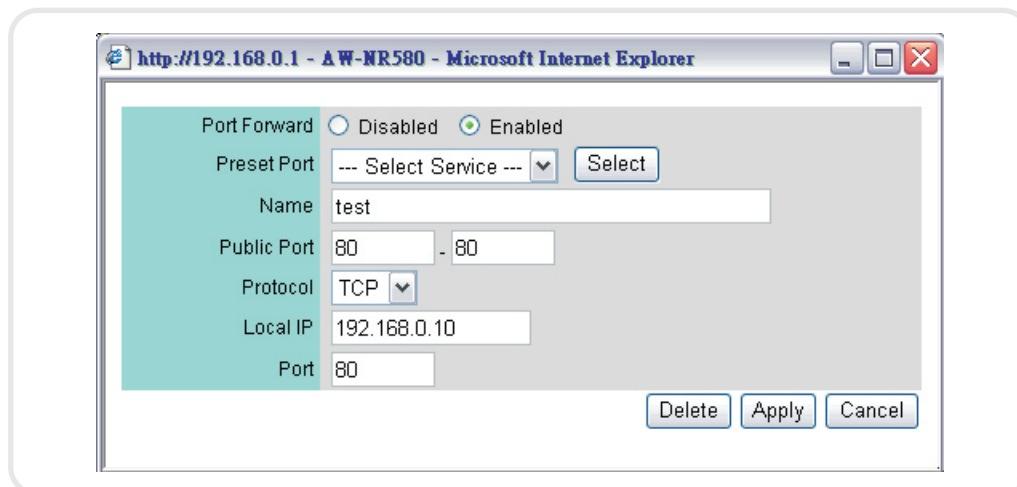
This will allow you to open a single port or a range of ports.

Enter a name for the rule and select an Service (HTTP, FTP,...) from the drop-down menu.

Enter the IP address of the computer on your local network that you want to allow the incoming service to. Enter the TCP and/or UDP port or ports that you want to open. You can enter a single port or a range of ports. Separate ports with a common. Example: 3000-4000. When you have finished making changes to this screen, click the **Apply** button to save the changes.



To delete the rules, click "delete Button."



Firewall-Triggering

This screen instructs the Router to watch outgoing data for specific port numbers. The IP address of the computer that sends the matching data is remembered by the Router, so that when the requested data returns through the Router, the data is sent to the proper computer by way of IP address and port mapping rules.

Name. Enter the name of the application.

Triggering Port. Enter the starting and ending port numbers of the triggered port range. Check with the Internet application documentation for the port number(s) and Protocol needed.

Open Port. Enter the starting and ending port numbers of the triggered port range and Protocol needed.

When you have finished making changes to this screen, click the **Apply** button to save the changes.

Status	<input checked="" type="radio"/> Disabled <input type="radio"/> Enabled
Network	
Wireless	
Firewall	
Internet Access	
MAC Filter	
Domain Filter	
URL Filter	
Port Forwarding	
Port Triggering	
DMZ	
Security	
VPN Pass Through	

Enable	Name	Trigger Port	Protocol	Open Port	Protocol
--------	------	--------------	----------	-----------	----------

New Entry Apply Cancel

To delete the rules, click “**delete**” Button.”

Port Triggering	<input type="radio"/> Disabled <input checked="" type="radio"/> Enabled
Name	test
Triggering Port	80 - 80
Protocol	TCP
Open Port	80 - 80
Protocol	TCP

Delete Apply Cancel

Firewall-DMZ

The DMZ screen allows one local user to be exposed to the Internet for use of a special-purpose service such as Internet gaming and videoconferencing. DMZ hosting forwards all the ports at the same time to one PC. The Port Range Forwarding is more secure because it only opens the ports you want to have opened, while DMZ hosting opens all the ports of one computer, exposing the computer to the Internet.

Note: Placing a computer in the DMZ may expose that computer to a variety of security risks. Use of this option is only recommended as a last resort.

To use this feature, select **Enabled**. To disable DMZ hosting, select **Disabled**. And enter the IP address(es) in the fields provided.

<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
IP	
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Firewall-Security

Ping Access on WAN: Set to Disabled to prevent your router's WAN port from being detected by ping.

IDENT Pass Through: This feature keeps port 113 from being scanned by devices outside of your local network. Select **Enabled** to filter port 113, or **Disabled** to disable this feature.

Stateful Protect: A firewall enhances network security and uses Stateful Packet Inspection (SPI) for more detailed review of data packets entering your network. Select **Enabled** to use a firewall, or **Disabled** to disable it.

SYN FLOOD Protect: Set to Enabled will protect your router from SYN FLOOD attack.

PING FLOOD Protect: Set to Enabled will protect your router from PING FLOOD attack.

Ping Access on WAN	<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
IDENT Pass Through	<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
Stateful Protect	<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
SYN FLOOD Protect	<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
PING FLOOD Protect	<input checked="" type="radio"/> Disabled	<input type="radio"/> Enabled
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>		

Firewall-VPN Pass Through

IPSec Pass Through: IPSec (Internet Protocol Security) is a suite of protocols used to implement secure exchange of packets at the IP layer. To allow IPSec Pass through, click the **Enabled** button. To disable IPSec Pass through, click the **Disabled** button.

PPTP Pass Through: PPTP (Point-to-Point Tunneling Protocol) Pass through allows the Point-to-Point (PPP) to be tunneled through an IP network. To allow PPTP Pass through, click the **Enabled** button. To disable PPTP Pass through, click the **Disabled** button.

L2TP Pass Through: Layer 2 Tunneling Protocol is the method used to enable Point-to-Point sessions via the Internet on the Layer 2 level. To allow L2TP tunnels to pass through the Router, click the **Enabled** button. To disable L2TP Pass through, click the **Disabled** button.

The screenshot shows a software interface for managing a router's firewall settings. On the left is a vertical sidebar with a dark teal header containing the following navigation items: Status, Network, Wireless, Firewall, Internet Access, MAC Filter, Domain Filter, URL Filter, Port Forwarding, Port Triggering, DMZ, Security, and VPN Pass Through. The Firewall item is currently selected, indicated by a white background. To the right of the sidebar is a main configuration panel with a light gray background. This panel contains three sections for enabling or disabling pass-through for different protocols: IPSec Pass Through, PPTP Pass Through, and L2TP Pass Through. Each section has two radio buttons: 'Disabled' (gray) and 'Enabled' (blue). In all three sections, the 'Enabled' radio button is selected. At the bottom right of the configuration panel are two buttons: 'Apply' (gray) and 'Cancel' (gray).

System-Admin

This page will allow you to change the Administrator passwords. You can also enable Remote Management.

Device Name: Enter a name for the **AW-NR580** router.

New Password: Enter a new password for the Administrator Login Name. The administrator can make changes to the settings.

Retype Password: Retype the new password again.

Remote management: Remote management allows the AW-NR580 to be configured from the Internet by a web browser. A username and password is still required to access the Web-Management interface. In general, only a member of your network can browse the built-in web pages to perform Administrator tasks. This feature enables you to perform Administrator tasks from the remote (Internet) host.

The port number used to access the AW-NR580.

Example: <http://x.x.x.x:8080> whereas x.x.x.x is the Internet IP address of the AW-NR580 and 8080 is the port used for the Web Management interface.

Status	Device Name	AW-NR580
Network	Login Name	admin
Wireless	New Password	
Firewall	Retype Password	
System	Remote Management	<input checked="" type="radio"/> Disabled <input type="radio"/> Enabled
<input checked="" type="checkbox"/> Admin	Port	8080
<input type="checkbox"/> Time		
<input type="checkbox"/> Config		
<input type="checkbox"/> Firmware		

Apply Cancel

System-Time

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the Time Server.

Time Zone: Select the Time Zone from the drop-down menu.

NTP server: Enter the NTP server. NTP is short for Network Time Protocol. NTP synchronizes computer clock times in a network of computers. This will only connect to a server on the Internet, not a local server.

Time Zone: GMT+08:00
NTP Server: clock.isc.org

Apply Cancel

System-Config

Save Configuration File: Use this option to save the current router configuration settings to a file on the hard disk of the computer you are using. First, click the Save button. You will then see a file dialog, where you can select a location and file name for the settings.

Restore Configuration File: Use this option to load previously saved router configuration settings. First, use the Browse control to find a previously save file of configuration settings. Then, click the Load button to transfer those settings to the router.

Restore to Factory Default: This option will restore all configuration settings back to the settings that were in effect at the time the router was shipped from the factory. Any settings that have not been saved will be lost, including any rules that you have created. If you want to save the current router configuration settings, use the Save button above.

Save Configuration File Save

Restore Configuration File Browse... Restore

Restore to Factory Default Restore Default

System-Firmware

You can upgrade the firmware of the Router here. Make sure the firmware you want to use is on the local hard drive of the computer. Click on Browse **button** to locate the firmware file to be used then Click **Update** button.



Regulatory Information

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

EN 60 950-1: 2001 +A11: 2004

Safety of Information Technology Equipment

EN50385 : (2002-08)

Product standard to demonstrate the compliance of radio base stations and fixed terminal stations for wireless telecommunication systems with the basic restrictions or the reference levels related to human exposure to radio frequency electromagnetic fields (110MHz - 40 GHz) - General public

EN 300 328 V1.7.1 (2006-10)

Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

EN 301 489-1 V1.6.1: (2005-09)

Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements

EN 301 489-17 V1.2.1 (2002-08) Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

CE 0560 !

Česky [Czech]	[Jméno výrobce] tímto prohlašuje, že tento [typ zařízení] je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede [fabrikantens navn] erklærer herved, at følgende udstyr [udstyrets typebetegnelse] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EU.
Deutsch [German]	Hiermit erklärt [Name des Herstellers], dass sich das Gerät [Gerätetyp] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]	Käesolevaga kinnitab [tootja nimi = name of manufacturer] seadme [seadme tüüp = type of equipment] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, [name of manufacturer], declares that this [type of equipment] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente [nombre del fabricante] declara que el [clase de equipo] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [name of manufacturer] ΔΗΛΩΝΕΙ ΟΤΙ [type of equipment] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/EK.
Français [French]	Par la présente [nom du fabricant] déclare que l'appareil [type d'appareil] est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Italiano [Italian]	Con la presente [nome del costruttore] dichiara che questo [tipo di apparecchio] è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo [name of manufacturer / izgatavotāja nosaukums] deklarē, ka [type of equipment / iekārtas tips] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo [manufacturer name] deklaruoją, kad šis [equipment type] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart [naam van de fabrikant] dat het toestel [type van toestel] in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, [isem tal-manifattur], jiddikjara li dan [il-mudel tal-prodott] jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, [gyártó neve] nyilatkozom, hogy a [... típus] megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym [nazwa producenta] oświadcza, że [nazwa wyrobu] jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	[Nome do fabricante] declara que este [tipo de equipamento] está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

Slovensko [Slovenian]	[Ime proizvajalca] izjavlja, da je ta [tip opreme] v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	[Meno výrobcu] týmto vyhlasuje, že [typ zariadenia] spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Lietuvių [Lithuanian]	Šiuo [manufacturer name] deklaruoja, kad šis [equipment type] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Suomi [Finnish]	[Valmistaja = manufacturer] vakuuttaa täten että [type of equipment = laitteen typpimerkintä] tyypinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar [företag] att denna [utrustningstyp] står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.



Version: 1.00